

REMARKS

The last Office Action of April 28, 2008 has been carefully considered. Reconsideration of the instant application in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 1-26 are pending in the application. No amendment to the claims has been made. Amendments to the specification have been made to correct obvious mistranslations of the German word "verhältnis" which was translated as "disk", when in fact it should have been translated with --ratio--. This mistranslation has now been corrected.

Claims 1, 2, 7, 10, 12, 19, 23 stand rejected under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as being unpatentable over Japanese Published Patent Application H10-14159 (hereinafter "JP-14159").

Claims 8, 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over JP-14159.

Claim 13 stands rejected under 35 U.S.C. §103(a) as being unpatentable over JP-14159 in view of IEEE publication to Chenggang Mei et al.

It is noted with appreciation that claims 16-17, 25-26 are allowed.

It is also noted with appreciation that claims 3-5, 18, 6, 9, 20, 21, 22, 24, 11, 15 are indicated allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. However, applicant wishes to defer amendments to these dependent claims in view of the arguments presented below regarding independent claims 1, 7, 10.

The rejection of claims 1-2, 7, 10, 12, 19 and 23 under 35 U.S.C. 102(b) as anticipated or, in the alternative, under 35 U.S.C. §103(a) as being unpatentable over JP-14159 is hereby respectfully traversed.

The proposed analysis of JP-14159 is fatally flawed, in that the "shaft current Ij" is explicitly disclosed in the "SOLUTION" section of JP-14159 as the current that must be "reduced or eliminated" to prevent damage to the bearing on

that shaft. Thus, it is not a compensatory current, as alleged in the Office Action. It is well-known that shaft currents (a.k.a. bearing currents) will be produced when ripple voltages V_r produced by the inverter 10 that supplies power to the motor 7 in this circuit become excessive, or the insulation provided by the "oil film" that prevents current flow breaks down, as discussed by applicant at [0034]. Thus, the ripple voltage V_r , rather than being a compensation voltage, "discharges" or "energizes" the shaft through the "oil film" to produce the undesirable shaft current I_j , disclosed in the "SOLUTION" section of JP-14159.

A "means 12 for reducing or eliminating the shaft current I_j " is disclosed in the Abstract of JP-14159, but its connections and method of operation are not disclosed. Figs. 2-4 of the underlying document, available from the Japanese Patent Office website, show that this means 12, 12a or 12b is always connected between the motor housing and ground. It is not connected to the rotor 3 and does not produce a compensation voltage for the rotor 3, as recited in applicant's claims.

Furthermore, the destructive bearing current I_j is physically connected to ground but only induced in the rotor 3, as shown by static charge symbols in Fig. 3. The destructive bearing current I_j that is connected in series with that means 12 is never physically, intentionally, connected to the rotor. And it produces a compensation voltage as a function of the ripple voltage and that destructive bearing current I_j , and not as a function of an operating voltage of the electrical machine as recited in the claims.

Nothing in JP-14159 discloses or suggests applicant's advantageous invention.

For the reasons set forth above, it is applicant's contention that JP-14159 neither teaches nor suggests the features of the present invention, as recited in claims 1, 7, 10.

As for the rejection of the dependent claims, these claims depend on claims 1, 7, 10, respectively, share their presumably allowable features, and therefore it is respectfully submitted that these claims should also be allowed.


Applicant has also carefully scrutinized the further cited prior art and finds it without any relevance to the claims on file. It is thus felt that no specific discussion thereof is necessary.

In view of the above presented remarks and amendments, it is respectfully submitted that all claims on file should be considered patentably differentiated over the art and should be allowed.

Reconsideration and allowance of the present application are respectfully requested.

Should the Examiner consider necessary or desirable any formal changes anywhere in the specification, claims and/or drawing, then it is respectfully requested that such changes be made by Examiner's Amendment, if the Examiner feels this would facilitate passage of the case to issuance. If the Examiner feels that it might be helpful in advancing this case by calling the undersigned, applicant would greatly appreciate such a telephone interview.

Respectfully submitted,

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